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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/760,392	01/21/2004	Sheng Shun Yen	BHT-3092-413	1298
7590 BRUCE H. TROXELL SUITE 1404 5205 LEESBURG PIKE FALLS CHURCH, VA 22041		02/05/2008	EXAMINER GYORFI, THOMAS A	
			ART UNIT 2135	PAPER NUMBER
			MAIL DATE 02/05/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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Office Action Summary	Application No. 10/760,392	Applicant(s) YEN, SHENG SHUN	
	Examiner Tom Gyorfi	Art Unit 2135	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 November 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 January 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-5 remain for examination. The correspondence filed 11/14/07 amended claim 1 and cancelled claims 7 & 8.

Continued Examination Under 37 CFR 1.114

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/14/07 has been entered.

Response to Arguments

3. Applicant's arguments filed 11/14/07 have been fully considered but they are not persuasive. Applicant primarily argues that Chiao does not teach dividing a memory unit into a plurality of blocks; however, as can clearly be seen in Figures 2 & 4, the memory of the flash memory device is partitioned into two separate blocks (elements 20 and 24). Furthermore, depending on the particular embodiment considered, either the flash memory or the microcontroller memory is itself partitioned into at least two blocks. In Figure 4 the microcontroller memory has a security program block and a predetermined pass code block, wherein only an authorized user of the security program may read, write, modify, etc. the contents of the predetermined pass code block (col. 3, lines 20-

35), while Figure 2 illustrates wherein the security program of the flash memory is accessible by any user (col. 3, lines 45-67) but only an authorized user may have any access rights to the bulk storage block (Ibid, and col. 4, lines 1-5). Furthermore, regarding the Applicant's arguments regarding the rejections under 35 USC 103, it is observed that attempts to show a lack of teaching, suggestion, or motivation to combine references are no longer sufficient to establish non-obviousness of the claimed subject matter. To quote MPEP § 2144, "The KSR Decision and Principles of the Law of Obviousness":

The Supreme Court in KSR reaffirmed the familiar framework for determining obviousness as set forth in *Graham v. John Deere Co.* (383 U.S. 1, 148 USPQ 459 (1966)), but stated that the Federal Circuit had erred by applying the teaching-suggestion-motivation (TSM) test in an overly rigid and formalistic way. KSR, 550 U.S. at ___, 82 USPQ2d at 1391. Specifically, the Supreme Court stated that the Federal Circuit had erred in four ways: (1) "by holding that courts and patent examiners should look only to the problem the patentee was trying to solve " (Id. at ___, 82 USPQ2d at 1397); (2) by assuming "that a person of ordinary skill attempting to solve a problem will be led only to those elements of prior art designed to solve the same problem" (Id.); (3) by concluding "that a patent claim cannot be proved obvious merely by showing that the combination of elements was obvious to try" (Id.); and (4) by overemphasizing "the risk of courts and patent examiners falling prey to hindsight bias" and as a result applying "[r]igid preventative rules that deny factfinders recourse to common sense" (Id.).

Thus Applicant's arguments regarding the combination of Chiao and Schneier references are displaced and non-persuasive; however, Examiner has nevertheless rewritten the obviousness rejections herein to bring them more in line with currently established Supreme Court decisions.

Drawings

4. The drawings are objected to under 37 CFR 1.83(a) because they fail to show any details as described in the specification. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

It is additionally observed that the fact that the claims no longer recite the limitation "wherein the connector lacks metal shielding" does not obviate Applicant's obligation to amend the drawings for compliance with 37 CFR 1.121(d).

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1 and 2 are rejected under 35 U.S.C. 102(b) based upon a public use or sale of the invention. M-Systems DiskOnKey USB Flash drive (hereinafter, "DiskOnKey") had implemented all the limitations of the claims circa August 2002, as evidenced by "SanDisk Cruzer and M-Systems DiskOnKey Review" (in two parts; hereinafter, "Grevstad"), "Using Multilingual KeySafe™" (hereinafter, "KeySafe"), and "Flash Disks to Go" (hereinafter, "Gillmor").

Regarding claim 1:

DiskOnKey discloses a low profile USB data processing card, comprising: at least one set of USB signals, for transmitting data (Grevstad, part 1, "Got USB? Got Your Files"; Gillmor, 1st and 2nd paragraphs); a controller and a memory unit, for selectively writing a processed data into a memory unit and transmitting the data in said memory unit to the interface, said memory unit is divided into a plurality of blocks including a reserved block, each block of the plurality of blocks has functions selected

from a group consisting of allowing users to and prohibiting the users from reading, writing, deleting, modifying data, and formatting the block (KeySafe, pages 2-3, "3.1 Creating the Privacy Zone"; also note on page 5 that the use of Windows Explorer to access the Privacy Zone inherently provides a user with the ability to read, write, modify, delete, and format a partition; cf. Grevstad, part 2, page 1, last two paragraphs); an encryption unit, for providing an encryption capability to said controller, wherein the encryption unit provides a computation selected from a collection of symmetric key algorithm, asymmetric key algorithm, or a hash algorithm as well as a data protection function (Gillmor, 3rd paragraph; cf. the Office Action of 7/16/07, page 4, last paragraph); and an appropriate program allowing a specific user to read, write, delete, and modify data in said reserved block, and format said reserved block (the KeySafe application: Grevstad, Ibid, and KeySafe, entire reference).

Regarding claim 2:

DiskOnKey further discloses wherein said memory unit has at least one memory device (inherent to being a flash drive for data storage).

7. Claims 1 and 2 are again rejected under 35 U.S.C. 102(b) based upon a public use or sale of the invention. The 64MB SanDisk Cruzer Flash USB Storage Drive (hereinafter, "SanDisk") had implemented all the limitations of the claims by no later than September 2002, as evidenced by the Grevstad reference above and "64MB SanDisk Cruzer – Flash USB Storage Device" (hereinafter, "Unrein").

Regarding claim 1:

SanDisk discloses a low profile USB data processing card, comprising: at least one set of USB signals, for transmitting data (Grevstad, part 1, "Got USB? Got Your Files"; Unrein, page 1, "Specifications and Features"); a controller and a memory unit, for selectively writing a processed data into a memory unit and transmitting the data in said memory unit to the interface, said memory unit is divided into a plurality of blocks including a reserved block, each block of the plurality of blocks has functions selected from a group consisting of allowing users to and prohibiting the users from reading, writing, deleting, modifying data, and formatting the block (Grevstad, part 2, page 2, last paragraph; Unrein, pages 2 & 3, noting that the use of Windows Explorer to use the device inherently provides the user with the ability to read, write, modify, delete, and format the memory); an encryption unit, for providing an encryption capability to said controller, wherein the encryption unit provides a computation selected from a collection of symmetric key algorithm, asymmetric key algorithm, or a hash algorithm as well as a data protection function (Grevstad, Ibid; Unrein, Ibid); and an appropriate program allowing a specific user to read, write, delete, and modify data in said reserved block, and format said reserved block (the CruzerLock program: Grevstad, Ibid; Unrein, Ibid.).

Regarding claim 2:

SanDisk further discloses wherein said memory unit has at least one memory device (inherent to being a flash drive for data storage).

8. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chiao (U.S. Patent 6,904,493).

Regarding claim 1:

Chiao discloses a USB data processing card, comprising: at least one set of USB signals, for transmitting data (col. 2, lines 55-60); a controller and a memory unit for selectively writing a processed data into a memory unit and transmitting the data in said memory unit to the interface (col. 3, lines 5-10) wherein said memory unit is divided into a plurality of blocks including a reserved block, each of the plurality of blocks have a functions selected from a group of allowing users to an prohibiting the users from read, write, delete, modify data, or format (col. 3, line 20 – col. 4, line 20; Figures 2 and 4); an encryption unit, for providing a encrypting capability selected from a symmetric algorithm, asymmetric algorithm, and hash algorithm (Applicant-admitted prior art: see the Office Action of 7/16/04, page 4, last paragraph) to said controller and a data protection function (col. 3, lines 25-30); and an appropriate program that allows the specific user to read, write, delete, modify data, and format block in said reserved block (col. 4, lines 5-20).

Regarding claim 2:

Chiao further discloses at least one memory device (Figures 2 and 4).

Regarding claim 3:

Chiao further discloses wherein said controller and said memory unit are integrated into one chip (Figure 2).

Regarding claim 4:

Chiao further discloses wherein said controller and said encryption unit are integrated into one chip (Figure 4).

Claim Rejections - 35 USC § 103

9. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

10. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chiao as applied to claim 1 above, and further in view of "Applied Cryptography, 2nd Edition" (hereinafter, "Schneier").

Regarding claim 5:

Although Chiao discloses encrypting a stored pass code (col. 3, lines 25-30), it does not explain how the encryption algorithm works, and more specifically, that a random number generator for generating a key for data encryption or protection is used. However, Schneier teaches that one of ordinary skill in the art would have long since known that when storing a pass code (i.e. password) on a device, it should be hashed first (Schneier, page 52, "Authentication Using One-Way Functions"; cf. page 30, "One-Way Hash Functions"), and moreover that the hash should include a random "salt" to make it more difficult for a hacker to discern (pages 52-53, "Dictionary Attacks and Salt"), implying the existence of a random number generator. It is further observed that it is the hashed value, and not the original pass code, that would be used as the key for

data protection (page 52, step [3]). Accordingly, the claim is thus rendered obvious because the technique of using a random number generator to generate a key for data encryption or protection was recognized as part of the ordinary capabilities of one of ordinary skill in the art, as said technique would achieve the known predictable result of further protecting against unauthorized access to the memory. See also *KSR v. Teleflex*, 550 U.S. at ___, 82 USPQ2d at 1395.

11. Claim 5 is also rejected under 35 U.S.C. 103(a) as being unpatentable over DiskOnKey as applied to claim 1 above, and further in view of Schneier.

Regarding claim 5:

As DiskOnKey also discloses the use of a stored password to access the protected data (Grevstad, part 2, page 1, last paragraph), thus the claim is obvious over the combination of DiskOnKey in view of Schneier for substantially similar reasons as discussed in the combination of Chiao and Schneier above.

12. Claim 5 is also rejected under 35 U.S.C. 103(a) as being unpatentable over SanDisk as applied to claim 1 above, and further in view of Schneier.

Regarding claim 5:

As SanDisk also discloses the use of a stored password to access the protected data (Grevstad, part 2, page 2, last paragraph), thus the claim is obvious over the combination of SanDisk in view of Schneier for substantially similar reasons as discussed in the combination of Chiao and Schneier above.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. In particular, Examiner has found additional examples of USB flash drives with data protection functions prior to the instant invention:

- Sony Micro Vault: "C|Net Hardware: Mini megabytes: USB flash drives" and "Sony Micro Vault: Keep data away from prying eyes" references
- Trek Thumbdrive Secure: "Product Info" page and "Trek Trekstor Secure User's Manual" references
- JMTek USBDrive: "Consumer Electronics Show 2002" (see pages 9 & 10) and "USBDrive Utility Instructions" references

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tom Gyorfi whose telephone number is (571) 272-3849. The examiner can normally be reached on 8:30am - 5:00pm Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Vu can be reached on (571) 272-3859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

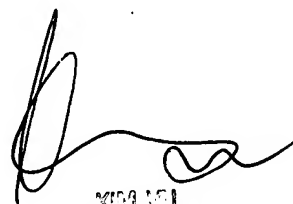
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